

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A liquid crystal display device, comprising:
an image display part formed on a first substrate where data lines and gate lines are vertically and horizontally arranged, respectively, to cross each other;
a plurality of gate tape carrier packages having a gate driving integrated circuit to drive the gate lines;
a plurality of data tape carrier packages having a data driving integrated circuit to drive the data lines;
a plurality of conductive lines formed at an outer side of the image display part and on the first substrate to supply gate driving signals to the gate driving integrated circuits to be supplied to the gate lines;
a first control signal line ~~formed in the gate tape carrier packages~~, the first control signal line being together with the conductive lines to supply a first control signal to the gate driving integrated circuits mounted on the gate tape carrier packages so that the gate lines of the image display part may be sequentially driven from the first one to the last one;
a second control signal line ~~formed in the gate tape carrier packages~~, the second control signal line being together with the conductive lines to supply a second control signal to the gate driving integrated circuits mounted on the gate tape carrier packages so that the gate lines of the image display part may be sequentially driven from the last one to the first one; and
a first controller to supply the first and second control signals to the first and second control signal lines.

2. (Previously Presented) The device according to claim 1, wherein the first control signal line is to transmit a gate start pulse (GSP).

3. (Original) The device according to claim 1, further comprising a shorting line mounted at an edge of the first substrate to electrically connect an end of the first control signal line and an end of the second control signal line extended from the last gate driving IC.

4. (Previously Presented) The device according to claim 1, wherein the first controller is to transmit a third control signal to the first data driving IC and the last data driving

IC to sequentially apply image information from the first data driving IC to the last data driving IC or from the last data driving IC to the first data driving IC.

5. (Currently Amended) A method of driving a liquid crystal display device, comprising:

providing a plurality of gate tape carrier packages having a gate driving integrated circuit for driving a plurality of gate lines;

providing a plurality of data tape carrier packages having a data driving integrated circuit for driving a plurality of data lines;

providing a plurality of conductive lines at an outer side of an image display part and on a first substrate to supply gate driving signals to the gate driving integrated circuits to be supplied to the gate lines; and

supplying a first control signal to the gate driving integrated circuits using a first control line in the gate tape carrier packages so that the gate lines of the image display part may be sequentially driven from the last one to the first one.

6. (Original) The method according to claim 5, wherein an image produced by supplying the first control signal is inverted.

7. (Original) The method according to claim 5, further comprising:
supplying a second control signal to the data driving integrated circuits using a second control line so that the data lines of the image display part may be sequentially driven from the last one to the first one.

8. (Original) The method according to claim 7, wherein an image produced by supplying the second control signal is reversed.

9. (Original) The method according to claim 5, wherein the first control signal line transmits a gate start pulse (GSP).

10. (Previously Presented) A method of driving a liquid crystal display device, comprising:

providing a plurality of gate tape carrier packages having a gate driving integrated circuit for driving a plurality of gate lines;

providing a plurality of data tape carrier packages having a data driving integrated circuit for driving a plurality of data lines;

providing a plurality of conductive lines at an outer side of an image display part of a first substrate for supplying gate driving signals to the gate driving integrated circuits; and

supplying a first control signal to the gate driving integrated circuits using a first control line so that the gate lines of the image display part may be sequentially driven from the last one to the first one; and

providing a shorting line at an edge of the first substrate to electrically connect an end of the first control signal line and an end of the second control signal line extended from the last gate driving IC.

11. (Original) The method according to claim 5, wherein the first controller transmits a third control signal to the first data driving IC and the last data driving IC to sequentially apply image information from the first data driving IC to the last data driving IC or from the last data driving IC to the first data driving IC.

12. (Currently Amended) A method of driving a liquid crystal display device, comprising:

providing a liquid crystal display device including:

an image display part formed on a first substrate where data lines and gate lines are vertically and horizontally arranged, respectively, to cross each other;

a plurality of gate tape carrier packages having a gate driving integrated circuit for driving the gate lines;

a plurality of data tape carrier packages having a data driving integrated circuit for driving the data lines; and

a plurality of conductive lines mounted on an outer side of the image display part and on the first substrate for supplying gate driving signals to the gate driving integrated circuits to be supplied to the gate lines; and

supplying a first control signal to the gate driving integrated circuits using a first control line in the gate tape carrier packages so that the gate lines of the image display part may be sequentially driven from the last one to the first one.

13. (Original) The method according to claim 12, wherein an image produced by supplying the first control signal is inverted.

14. (Original) The method according to claim 12, further comprising:
supplying a second control signal to the data driving integrated circuits using a second control line so that the data lines of the image display part may be sequentially driven from the last one to the first one.

15. (Original) The method according to claim 14, wherein an image produced by supplying the second control signal is reversed.

16. (Original) The method according to claim 12, wherein the first control signal line transmits a gate start pulse (GSP).

17. (Previously Presented) A method of driving a liquid crystal display device, comprising:

providing a liquid crystal display device including:

an image display part formed on a first substrate where data lines and gate lines are vertically and horizontally arranged, respectively, to cross each other;

a plurality of gate tape carrier packages having a gate driving integrated circuit for driving the gate lines;

a plurality of data tape carrier packages having a data driving integrated circuit for driving the data lines; and

a plurality of conductive lines mounted at an outer side of the image display part and on the first substrate for supplying gate driving signals to the gate driving integrated circuits;
~~and~~

supplying a first control signal to the gate driving integrated circuits using a first control line so that the gate lines of the image display part may be sequentially driven from the last one to the first one; and

providing a shorting line at an edge of the first substrate to electrically connect an end of the first control signal line and an end of the second control signal line extended from the last gate driving IC.

18. (Original) The method according to claim 12, wherein the first controller transmits a third control signal to the first data driving IC and the last data driving IC to sequentially apply image information from the first data driving IC to the last data driving IC or from the last data driving IC to the first data driving IC.